Advanced Programming

COEN 11, Fall 2014

Lab 5: Linked List

Restaurant Waiting List

- Change lab 3 use a linked list (dynamic memory allocation)
- Each node has a reservation name and the number of people in the group
- Chance all variables to local

Functionality

The waiting list is created interactively with the following commands

- insert name number – insert a node with the name and number of people specified
- search size – extract (show and delete) oldest node with a number <= size
- list – print the list, name and number, from oldest to newest
- quit – quit

Requirements

- Use 1 linked list (dynamic)
- 4 functions: main, insert, search, list
- Do not allow names to repeat
- Check the list before inserting
- Keep your list in the oldest-to-newest order
- Always insert a new entry at the **end**
- A **tail pointer** pointing to the last node makes it more efficient
- To list: Traverse the list using the pointers

Submission

To receive full credit

- Demo Show the TA
  - insert (3 items)
  - search (one existing and one non-existing elements)
  - list
  - quit
- Submit in camino